West Virginia Department of Environmental Protection
Division of Air Quality

Earl Ray Tomblin
Governor

Randy C. Huffman
Cabinet Secretary

Permit to Operate

Pursuant to
Title V
of the Clean Air Act

Issued to:
Dominion Transmission, Inc.
Cornwell Station/Clendenin
R30-03900051-2012

John A. Benedict
Director

Issued: July 10, 2012 • Effective: July 24, 2012
Expiration: July 10, 2017 • Renewal Application Due: January 10, 2017

Permit Number: **R30-03900051-2012**
Permittee: **Dominion Transmission, Inc.**
Facility Name: **Cornwell Station**
Permittee Mailing Address: **445 West Main Street, Clarksburg, WV 26301**

This permit is issued in accordance with the West Virginia Air Pollution Control Act (West Virginia Code §§ 22-5-1 et seq.) and 45CSR30 — Requirements for Operating Permits. The permittee identified at the above-referenced facility is authorized to operate the stationary sources of air pollutants identified herein in accordance with all terms and conditions of this permit.

Facility Location: Clendenin, Kanawha County, West Virginia
Facility Mailing Address: 200 River Haven Road, Clendenin, WV 25045
Telephone Number: (304) 548-6901
Type of Business Entity: Corporation
Facility Description: Natural Gas Compressor Station
SIC Codes: 4922
UTM Coordinates: 476.19 km Easting • 4,259.58 km Northing • Zone 17

Permit Writer: Bobbie Scroggie

Any person whose interest may be affected, including, but not necessarily limited to, the applicant and any person who participated in the public comment process, by a permit issued, modified or denied by the Secretary may appeal such action of the Secretary to the Air Quality Board pursuant to article one [§§ 22B-1-1 et seq.], Chapter 22B of the Code of West Virginia. West Virginia Code §22-5-14.

Issuance of this Title V Operating Permit does not supersede or invalidate any existing permits under 45CSR13, 14 or 19, although all applicable requirements from such permits governing the facility's operation and compliance have been incorporated into the Title V Operating Permit.

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1.0 Emission Units and Active R13, R14, and R19 Permits

1.1. Emission Units

Emission Unit ID	Emission Point ID	Emission Unit Description	Year Installed	Design Capacity	Control Device
001-01 (Engine 07)	EN07	Reciprocating Engine/Integral Compressor; Caterpillar Model G3512	1998	810 HP	N/A
001-02	EN08	Reciprocating Engine/Integral Compressor; Cooper GMX-8TF	1969	440 HP	N/A
001-04	EN10	Reciprocating Engine/Integral Compressor; Cooper GMV-A-10TF	1947	1350 HP	N/A
001-05	EN11	Reciprocating Engine/Integral Compressor; Cooper GMV-A-10TF	1947	1350 HP	N/A
001-06	EN12	Reciprocating Engine/Integral Compressor; Cooper GMV-A-10TF	1947	1350 HP	N/A
001-07	EN13	Reciprocating Engine/Integral Compressor; Cooper GMV-A-10TF	1947	1350 HP	N/A
001-08	EN14	Reciprocating Engine/Integral Compressor; Cooper GMV-A-10TF	1947	1350 HP	N/A
001-09	EN15	Reciprocating Engine/Integral Compressor; Cooper GMV-A-10TF	1947	1350 HP	N/A
001-10	EN09	Reciprocating Engine/Integral Compressor; Ajax DPC-2804LE	2012	750 HP	CC01
001-0A	EN16	Reciprocating Engine/Integral Compressor; Cooper GMV-A-10TF	1947	1350 HP	N/A
001-0B	EN17	Reciprocating Engine/Integral Compressor; Cooper GMV-A-10TF	1947	1350 HP	N/A
001-0C	EN18	Reciprocating Engine/Integral Compressor; Ingersoll Rand 410-KVT	1962	2500 HP	N/A
001-0D	EN19	Reciprocating Engine/Integral Compressor; Ingersoll Rand 410-KVT	1962	2500 HP	N/A
002-04	AUX04	Reciprocating Engine/Generator; Caterpillar G3512	2002	810 HP	N/A
004-01	CPR01	Air Compressor; Onan MS/4390E	1985	25 HP	N/A
005-01	DEHY01~~B~~	Dehydration Unit Still; Natco Model SHV-3	1999	23 mmscf/day	F1 ~~0001~~
006-01	RBR01	Dehy Reboiler; Natco 5GR-375-DX5 ~~(DEHY OA in R13-2346B)~~	1999	0.62 mmBtu/hr	N/A
~~0001~~	~~DEHY01~~	~~Dehydrator Unit Still Column Flare (DEHY OB in R13-2346B)~~	~~1999~~	~~2.2 mmBtu/hr~~	~~N/A~~
0002	F1	Dehydration unit flare; QT1, Q250	2012	10.0 mmBtu/hr	N/A

1.2. Active R13, R14, and R19 Permits

The underlying authority for any conditions from R13, R14, and/or R19 permits contained in this operating permit is cited using the original permit number (e.g. R13-1234). The current applicable version of such permit(s) is listed below.

Permit Number	Date of Issuance
R13-2175D	April 30, 2012
R13-2346C ~~B~~	November 16, 2012 ~~May 30, 2003~~

2.0. General Conditions

2.1. Definitions

2.1.1. All references to the "West Virginia Air Pollution Control Act" or the "Air Pollution Control Act" mean those provisions contained in W.Va. Code §§ 22-5-1 to 22-5-18.

2.1.2. The "Clean Air Act" means those provisions contained in 42 U.S.C. §§ 7401 to 7671q, and regulations promulgated thereunder.

2.1.3. "Secretary" means the Secretary of the Department of Environmental Protection or such other person to whom the Secretary has delegated authority or duties pursuant to W.Va. Code §§ 22-1-6 or 22-1-8 (45CSR§30-2.12.). The Director of the Division of Air Quality is the Secretary's designated representative for the purposes of this permit.

2.1.4. Unless otherwise specified in a permit condition or underlying rule or regulation, all references to a "rolling yearly total" shall mean the sum of the monthly data, values or parameters being measured, monitored, or recorded, at any given time for the previous twelve (12) consecutive calendar months

2.2. Acronyms

CAAA	Clean Air Act Amendments	**NESHAPS**	National Emissions Standards for Hazardous Air Pollutants
CBI	Confidential Business Information		
CEM	Continuous Emission Monitor	**NO_x**	Nitrogen Oxides
CES	Certified Emission Statement	**NSPS**	New Source Performance Standards
C.F.R. *or* CFR	Code of Federal Regulations		
CO	Carbon Monoxide	**PM**	Particulate Matter
C.S.R. *or* CSR	Codes of State Rules	**PM_{10}**	Particulate Matter less than 10µm in diameter
DAQ	Division of Air Quality		
DEP	Department of Environmental Protection	**pph**	Pounds per Hour
		ppm	Parts per Million
FOIA	Freedom of Information Act	**PSD**	Prevention of Significant Deterioration
HAP	Hazardous Air Pollutant		
HON	Hazardous Organic NESHAP	**psi**	Pounds per Square Inch
HP	Horsepower	**SIC**	Standard Industrial Classification
lbs/hr	Pounds per Hour		
LDAR	Leak Detection and Repair	**SIP**	State Implementation Plan
m	Thousand	**SO_2**	Sulfur Dioxide
MACT	Maximum Achievable Control Technology	**TAP**	Toxic Air Pollutant
		TPY	Tons per Year
mm	Million	**TRS**	Total Reduced Sulfur
mmBtu/hr	Million British Thermal Units per Hour	**TSP**	Total Suspended Particulate
		USEPA	United States Environmental Protection Agency
mmft^3/hr	Million Cubic Feet Burned per Hour		
		UTM	Universal Transverse Mercator
NA *or* N/A	Not Applicable	**VEE**	Visual Emissions Evaluation
NAAQS	National Ambient Air Quality Standards	**VOC**	Volatile Organic Compounds

2.3. Permit Expiration and Renewal

2.3.1. Permit duration. This permit is issued for a fixed term of five (5) years and shall expire on the date specified on the cover of this permit, except as provided in 45CSR§30-6.3.b. and 45CSR§30-6.3.c.
[45CSR§30-5.1.b.]

2.3.2. A permit renewal application is timely if it is submitted at least six (6) months prior to the date of permit expiration.
[45CSR§30-4.1.a.3.]

2.3.3. Permit expiration terminates the source's right to operate unless a timely and complete renewal application has been submitted consistent with 45CSR§30-6.2. and 45CSR§30-4.1.a.3.
[45CSR§30-6.3.b.]

2.3.4. If the Secretary fails to take final action to deny or approve a timely and complete permit application before the end of the term of the previous permit, the permit shall not expire until the renewal permit has been issued or denied, and any permit shield granted for the permit shall continue in effect during that time.
[45CSR§30-6.3.c.]

2.4. Permit Actions

2.4.1. This permit may be modified, revoked, reopened and reissued, or terminated for cause. The filing of a request by the permittee for a permit modification, revocation and reissuance, or termination, or of a notification of planned changes or anticipated noncompliance does not stay any permit condition.
[45CSR§30-5.1.f.3.]

2.5. Reopening for Cause

2.5.1. This permit shall be reopened and revised under any of the following circumstances:

a. Additional applicable requirements under the Clean Air Act or the Secretary's legislative rules become applicable to a major source with a remaining permit term of three (3) or more years. Such a reopening shall be completed not later than eighteen (18) months after promulgation of the applicable requirement. No such reopening is required if the effective date of the requirement is later than the date on which the permit is due to expire, unless the original permit or any of its terms and conditions has been extended pursuant to 45CSR§§30-6.6.a.1.A. or B.

b. Additional requirements (including excess emissions requirements) become applicable to an affected source under Title IV of the Clean Air Act (Acid Deposition Control) or other legislative rules of the Secretary. Upon approval by U.S. EPA, excess emissions offset plans shall be incorporated into the permit.

c. The Secretary or U.S. EPA determines that the permit contains a material mistake or that inaccurate statements were made in establishing the emissions standards or other terms or conditions of the permit.

d. The Secretary or U.S. EPA determines that the permit must be revised or revoked and reissued to assure compliance with the applicable requirements.

[45CSR§30-6.6.a.]

2.6. Administrative Permit Amendments

2.6.1. The permittee may request an administrative permit amendment as defined in and according to the procedures specified in 45CSR§30-6.4.
[45CSR§30-6.4.]

2.7. Minor Permit Modifications

2.7.1. The permittee may request a minor permit modification as defined in and according to the procedures specified in 45CSR§30-6.5.a.
[45CSR§30-6.5.a.]

2.8. Significant Permit Modification

2.8.1. The permittee may request a significant permit modification, in accordance with 45CSR§30-6.5.b., for permit modifications that do not qualify for minor permit modifications or as administrative amendments.
[45CSR§30-6.5.b.]

2.9. Emissions Trading

2.9.1. No permit revision shall be required, under any approved economic incentives, marketable permits, emissions trading, and other similar programs or processes for changes that are provided for in the permit and that are in accordance with all applicable requirements.
[45CSR§30-5.1.h.]

2.10. Off-Permit Changes

2.10.1. Except as provided below, a facility may make any change in its operations or emissions that is not addressed nor prohibited in its permit and which is not considered to be construction nor modification under any rule promulgated by the Secretary without obtaining an amendment or modification of its permit. Such changes shall be subject to the following requirements and restrictions:

a. The change must meet all applicable requirements and may not violate any existing permit term or condition.

b. The permittee must provide a written notice of the change to the Secretary and to U.S. EPA within two (2) business days following the date of the change. Such written notice shall describe each such change, including the date, any change in emissions, pollutants emitted, and any applicable requirement that would apply as a result of the change.

c. The change shall not qualify for the permit shield.

d. The permittee shall keep records describing all changes made at the source that result in emissions of regulated air pollutants, but not otherwise regulated under the permit, and the emissions resulting from those changes.

e. No permittee may make any change subject to any requirement under Title IV of the Clean Air Act (Acid Deposition Control) pursuant to the provisions of 45CSR§30-5.9.

f. No permittee may make any changes which would require preconstruction review under any provision of Title I of the Clean Air Act (including 45CSR14 and 45CSR19) pursuant to the provisions of 45CSR§30-5.9.

[45CSR§30-5.9]

2.11. Operational Flexibility

2.11.1. The permittee may make changes within the facility as provided by § 502(b)(10) of the Clean Air Act. Such operational flexibility shall be provided in the permit in conformance with the permit application and applicable requirements. No such changes shall be a modification under any rule or any provision of Title I of the Clean Air Act (including 45CSR14 and 45CSR19) promulgated by the Secretary in accordance with Title I of the Clean Air Act and the change shall not result in a level of emissions exceeding the emissions allowable under the permit.

[45CSR§30-5.8]

2.11.2. Before making a change under 45CSR§30-5.8., the permittee shall provide advance written notice to the Secretary and to U.S. EPA, describing the change to be made, the date on which the change will occur, any changes in emissions, and any permit terms and conditions that are affected. The permittee shall thereafter maintain a copy of the notice with the permit, and the Secretary shall place a copy with the permit in the public file. The written notice shall be provided to the Secretary and U.S. EPA at least seven (7) days prior to the date that the change is to be made, except that this period may be shortened or eliminated as necessary for a change that must be implemented more quickly to address unanticipated conditions posing a significant health, safety, or environmental hazard. If less than seven (7) days notice is provided because of a need to respond more quickly to such unanticipated conditions, the permittee shall provide notice to the Secretary and U.S. EPA as soon as possible after learning of the need to make the change.

[45CSR§30-5.8.a.]

2.11.3. The permit shield shall not apply to changes made under 45CSR§30-5.8., except those provided for in 45CSR§30-5.8.d. However, the protection of the permit shield will continue to apply to operations and emissions that are not affected by the change, provided that the permittee complies with the terms and conditions of the permit applicable to such operations and emissions. The permit shield may be reinstated for emissions and operations affected by the change:

a. If subsequent changes cause the facility's operations and emissions to revert to those authorized in the permit and the permittee resumes compliance with the terms and conditions of the permit, or

b. If the permittee obtains final approval of a significant modification to the permit to incorporate the change in the permit.

[45CSR§30-5.8.c.]

2.11.4. "Section 502(b)(10) changes" are changes that contravene an express permit term. Such changes do not include changes that would violate applicable requirements or contravene enforceable permit terms and conditions that are monitoring (including test methods), recordkeeping, reporting, or compliance certification requirements.

[45CSR§30-2.39]

2.12. Reasonably Anticipated Operating Scenarios

2.12.1. The following are terms and conditions for reasonably anticipated operating scenarios identified in this permit.

a. Contemporaneously with making a change from one operating scenario to another, the permittee shall record in a log at the permitted facility a record of the scenario under which it is operating and to document the change in reports submitted pursuant to the terms of this permit and 45CSR30.

b. The permit shield shall extend to all terms and conditions under each such operating scenario; and

c. The terms and conditions of each such alternative scenario shall meet all applicable requirements and the requirements of 45CSR30.

[45CSR§30-5.1.i.]

2.13. Duty to Comply

2.13.1. The permittee must comply with all conditions of this permit. Any permit noncompliance constitutes a violation of the West Virginia Code and the Clean Air Act and is grounds for enforcement action by the Secretary or USEPA; for permit termination, revocation and reissuance, or modification; or for denial of a permit renewal application.

[45CSR§30-5.1.f.1.]

2.14. Inspection and Entry

2.14.1. The permittee shall allow any authorized representative of the Secretary, upon the presentation of credentials and other documents as may be required by law, to perform the following:

a. At all reasonable times (including all times in which the facility is in operation) enter upon the permittee's premises where a source is located or emissions related activity is conducted, or where records must be kept under the conditions of this permit;

b. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit;

c. Inspect at reasonable times (including all times in which the facility is in operation) any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under the permit;

d. Sample or monitor at reasonable times substances or parameters to determine compliance with the permit or applicable requirements or ascertain the amounts and types of air pollutants discharged.

[45CSR§30-5.3.b.]

2.15. Schedule of Compliance

2.15.1. For sources subject to a compliance schedule, certified progress reports shall be submitted consistent with the applicable schedule of compliance set forth in this permit and 45CSR§30-4.3.h., but at least every six (6) months, and no greater than once a month, and shall include the following:

a. Dates for achieving the activities, milestones, or compliance required in the schedule of compliance, and dates when such activities, milestones or compliance were achieved; and

b. An explanation of why any dates in the schedule of compliance were not or will not be met, and any preventative or corrective measure adopted.

[45CSR§30-5.3.d.]

2.16. Need to Halt or Reduce Activity not a Defense

2.16.1. It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit. However, nothing in this paragraph shall be construed as precluding consideration of a need to halt or reduce activity as a mitigating factor in determining penalties for noncompliance if the health, safety, or environmental impacts of halting or reducing operations would be more serious than the impacts of continued operations.

[45CSR§30-5.1.f.2.]

2.17. Emergency

2.17.1. An "emergency" means any situation arising from sudden and reasonably unforeseeable events beyond the control of the source, including acts of God, which situation requires immediate corrective action to restore normal operation, and that causes the source to exceed a technology-based emission limitation under the permit, due to unavoidable increases in emissions attributable to the emergency. An emergency shall not include noncompliance to the extent caused by improperly designed equipment, lack of preventative maintenance, careless or improper operation, or operator error.

[45CSR§30-5.7.a.]

2.17.2. Effect of any emergency. An emergency constitutes an affirmative defense to an action brought for noncompliance with such technology-based emission limitations if the conditions of 45CSR§30-5.7.c. are met.

[45CSR§30-5.7.b.]

2.17.3. The affirmative defense of emergency shall be demonstrated through properly signed, contemporaneous operating logs, or other relevant evidence that:

a. An emergency occurred and that the permittee can identify the cause(s) of the emergency;

b. The permitted facility was at the time being properly operated;

c. During the period of the emergency the permittee took all reasonable steps to minimize levels of emissions that exceeded the emission standards, or other requirements in the permit; and

d. Subject to the requirements of 45CSR§30-5.1.c.3.C.1, the permittee submitted notice of the emergency to the Secretary within one (1) working day of the time when emission limitations were exceeded due to the emergency and made a request for variance, and as applicable rules provide. This notice, report, and variance request fulfills the requirement of 45CSR§30-5.1.c.3.B. This notice must contain a detailed description of the emergency, any steps taken to mitigate emissions, and corrective actions taken.

[45CSR§30-5.7.c.]

2.17.4. In any enforcement proceeding, the permittee seeking to establish the occurrence of an emergency has the burden of proof.

[45CSR§30-5.7.d.]

2.17.5. This provision is in addition to any emergency or upset provision contained in any applicable requirement. **[45CSR§30-5.7.e.]**

2.18. Federally-Enforceable Requirements

2.18.1. All terms and conditions in this permit, including any provisions designed to limit a source's potential to emit and excepting those provisions that are specifically designated in the permit as "State-enforceable only", are enforceable by the Secretary, USEPA, and citizens under the Clean Air Act. **[45CSR§30-5.2.a.]**

2.18.2. Those provisions specifically designated in the permit as "State-enforceable only" shall become "Federally-enforceable" requirements upon SIP approval by the USEPA.

2.19. Duty to Provide Information

2.19.1. The permittee shall furnish to the Secretary within a reasonable time any information the Secretary may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating the permit or to determine compliance with the permit. Upon request, the permittee shall also furnish to the Secretary copies of records required to be kept by the permittee. For information claimed to be confidential, the permittee shall furnish such records to the Secretary along with a claim of confidentiality in accordance with 45CSR31. If confidential information is to be sent to USEPA, the permittee shall directly provide such information to USEPA along with a claim of confidentiality in accordance with 40 C.F.R. Part 2. **[45CSR§30-5.1.f.5.]**

2.20. Duty to Supplement and Correct Information

2.20.1. Upon becoming aware of a failure to submit any relevant facts or a submittal of incorrect information in any permit application, the permittee shall promptly submit to the Secretary such supplemental facts or corrected information. **[45CSR§30-4.2.]**

2.21. Permit Shield

2.21.1. Compliance with the conditions of this permit shall be deemed compliance with any applicable requirements as of the date of permit issuance provided that such applicable requirements are included and are specifically identified in this permit or the Secretary has determined that other requirements specifically identified are not applicable to the source and this permit includes such a determination or a concise summary thereof. **[45CSR§30-5.6.a.]**

2.21.2. Nothing in this permit shall alter or affect the following:

a. The liability of an owner or operator of a source for any violation of applicable requirements prior to or at the time of permit issuance; or

b. The applicable requirements of the Code of West Virginia and Title IV of the Clean Air Act (Acid Deposition Control), consistent with § 408 (a) of the Clean Air Act.

c. The authority of the Administrator of U.S. EPA to require information under § 114 of the Clean Air Act or to issue emergency orders under § 303 of the Clean Air Act.
[45CSR§30-5.6.c.]

2.22. Credible Evidence

2.22.1. Nothing in this permit shall alter or affect the ability of any person to establish compliance with, or a violation of, any applicable requirement through the use of credible evidence to the extent authorized by law. Nothing in this permit shall be construed to waive any defenses otherwise available to the permittee including but not limited to any challenge to the credible evidence rule in the context of any future proceeding.
[45CSR§30-5.3.e.3.B. and 45CSR38]

2.23. Severability

2.23.1. The provisions of this permit are severable. If any provision of this permit, or the application of any provision of this permit to any circumstance is held invalid by a court of competent jurisdiction, the remaining permit terms and conditions or their application to other circumstances shall remain in full force and effect.
[45CSR§30-5.1.e.]

2.24. Property Rights

2.24.1. This permit does not convey any property rights of any sort or any exclusive privilege.
[45CSR§30-5.1.f.4]

2.25. Acid Deposition Control

2.25.1. Emissions shall not exceed any allowances that the source lawfully holds under Title IV of the Clean Air Act (Acid Deposition Control) or rules of the Secretary promulgated thereunder.

a. No permit revision shall be required for increases in emissions that are authorized by allowances acquired pursuant to the acid deposition control program, provided that such increases do not require a permit revision under any other applicable requirement.

b. No limit shall be placed on the number of allowances held by the source. The source may not, however, use allowances as a defense to noncompliance with any other applicable requirement.

c. Any such allowance shall be accounted for according to the procedures established in rules promulgated under Title IV of the Clean Air Act.
[45CSR§30-5.1.d.]

2.25.2. Where applicable requirements of the Clean Air Act are more stringent than any applicable requirement of regulations promulgated under Title IV of the Clean Air Act (Acid Deposition Control), both provisions shall be incorporated into the permit and shall be enforceable by the Secretary and U. S. EPA.
[45CSR§30-5.1.a.2.]

3.0. Facility-Wide Requirements

3.1. Limitations and Standards

3.1.1. **Open burning.** The open burning of refuse by any person is prohibited except as noted in 45CSR§6-3.1.
[45CSR§6-3.1.]

3.1.2. **Open burning exemptions.** The exemptions listed in 45CSR§6-3.1 are subject to the following stipulation: Upon notification by the Secretary, no person shall cause or allow any form of open burning during existing or predicted periods of atmospheric stagnation. Notification shall be made by such means as the Secretary may deem necessary and feasible.
[45CSR§6-3.2.]

3.1.3. **Asbestos.** The permittee is responsible for thoroughly inspecting the facility, or part of the facility, prior to commencement of demolition or renovation for the presence of asbestos and complying with 40 C.F.R. § 61.145, 40 C.F.R. § 61.148, and 40 C.F.R. § 61.150. The permittee must notify the Secretary at least ten (10) working days prior to the commencement of any asbestos removal on the forms prescribed by the Secretary if the permittee is subject to the notification requirements of 40 C.F.R. § 61.145(b)(3)(i). The USEPA, the Division of Waste Management and the Bureau for Public Health - Environmental Health require a copy of this notice to be sent to them.
[40 C.F.R. 61 and 45CSR34]

3.1.4. **Odor.** No person shall cause, suffer, allow or permit the discharge of air pollutants which cause or contribute to an objectionable odor at any location occupied by the public.
[45CSR§4-3.1 State-Enforceable only.]

3.1.5. **Standby plan for reducing emissions.** When requested by the Secretary, the permittee shall prepare standby plans for reducing the emissions of air pollutants in accordance with the objectives set forth in Tables I, II, and III of 45CSR11.
[45CSR§11-5.2]

3.1.6. **Emission inventory.** The permittee is responsible for submitting, on an annual basis, an emission inventory in accordance with the submittal requirements of the Division of Air Quality.
[W.Va. Code § 22-5-4(a)(14)]

3.1.7. **Ozone-depleting substances.** For those facilities performing maintenance, service, repair or disposal of appliances, the permittee shall comply with the standards for recycling and emissions reduction pursuant to 40 C.F.R. Part 82, Subpart F, except as provided for Motor Vehicle Air Conditioners (MVACs) in Subpart B:

a. Persons opening appliances for maintenance, service, repair, or disposal must comply with the prohibitions and required practices pursuant to 40 C.F.R. §§ 82.154 and 82.156.

b. Equipment used during the maintenance, service, repair, or disposal of appliances must comply with the standards for recycling and recovery equipment pursuant to 40 C.F.R. § 82.158.

c. Persons performing maintenance, service, repair, or disposal of appliances must be certified by an approved technician certification program pursuant to 40 C.F.R. § 82.161.

[40 C.F.R. 82, Subpart F]

3.1.8. **Risk Management Plan.** Should this stationary source, as defined in 40 C.F.R. § 68.3, become subject to Part 68, then the owner or operator shall submit a risk management plan (RMP) by the date specified in 40 C.F.R. § 68.10 and shall certify compliance with the requirements of Part 68 as part of the annual compliance certification as required by 40 C.F.R. Part 70 or 71.
[40 C.F.R. 68]

3.1.9. **Fugitive Particulate Matter.** No person shall cause, suffer, allow or permit fugitive particulate matter to be discharged beyond the boundary lines of the property on which the discharge originates or at any public or residential location, which causes or contributes to statutory air pollution.
[45CSR§17-3.1]

3.1.10. The total volatile hazardous air pollutant (VHAP) concentration in the process stream shall be less than 10% by weight, for the facility to claim the exemption from equipment leak monitoring per 40 C.F.R §63.764(e)(2).
[40 C.F.R. § 63.764(e)(2)(i), 45CSR13, R13-2346, A.11, and 45CSR§30-5.1.c.]

3.2. Monitoring Requirements

3.2.1. None.

3.3. Testing Requirements

3.3.1. **Stack testing.** As per provisions set forth in this permit or as otherwise required by the Secretary, in accordance with the West Virginia Code, underlying regulations, permits and orders, the permittee shall conduct test(s) to determine compliance with the emission limitations set forth in this permit and/or established or set forth in underlying documents. The Secretary, or his duly authorized representative, may at his option witness or conduct such test(s). Should the Secretary exercise his option to conduct such test(s), the operator shall provide all necessary sampling connections and sampling ports to be located in such manner as the Secretary may require, power for test equipment and the required safety equipment, such as scaffolding, railings and ladders, to comply with generally accepted good safety practices. Such tests shall be conducted in accordance with the methods and procedures set forth in this permit or as otherwise approved or specified by the Secretary in accordance with the following:

a. The Secretary may on a source-specific basis approve or specify additional testing or alternative testing to the test methods specified in the permit for demonstrating compliance with 40 C.F.R. Parts 60, 61, and 63, if applicable, in accordance with the Secretary's delegated authority and any established equivalency determination methods which are applicable.

b. The Secretary may on a source-specific basis approve or specify additional testing or alternative testing to the test methods specified in the permit for demonstrating compliance with applicable requirements which do not involve federal delegation. In specifying or approving such alternative testing to the test methods, the Secretary, to the extent possible, shall utilize the same equivalency criteria as would be used in approving such changes under Section 3.3.1.a. of this permit.

c. All periodic tests to determine mass emission limits from or air pollutant concentrations in discharge stacks and such other tests as specified in this permit shall be conducted in accordance with an approved test protocol. Unless previously approved, such protocols shall be submitted to the Secretary in writing at least thirty (30) days prior to any testing and shall contain the information set forth by the Secretary. In addition, the permittee shall notify the Secretary at least fifteen (15) days prior to any testing so the Secretary may have the opportunity to observe such tests. This notification shall include the actual date and time during

which the test will be conducted and, if appropriate, verification that the tests will fully conform to a referenced protocol previously approved by the Secretary.

d. The permittee shall submit a report of the results of the stack test within 60 days of completion of the test. The test report shall provide the information necessary to document the objectives of the test and to determine whether proper procedures were used to accomplish these objectives. The report shall include the following: the certification described in paragraph 3.5.1; a statement of compliance status, also signed by a responsible official; and, a summary of conditions which form the basis for the compliance status evaluation. The summary of conditions shall include the following:

1. The permit or rule evaluated, with the citation number and language.

2. The result of the test for each permit or rule condition.

3. A statement of compliance or non-compliance with each permit or rule condition.

[WV Code § 22-5-4(a)(14-15) and 45CSR13]

3.4. Recordkeeping Requirements

3.4.1. **Monitoring information.** The permittee shall keep records of monitoring information that include the following:

a. The date, place as defined in this permit and time of sampling or measurements;

b. The date(s) analyses were performed;

c. The company or entity that performed the analyses;

d. The analytical techniques or methods used;

e. The results of the analyses; and

f. The operating conditions existing at the time of sampling or measurement.

[45CSR§30-5.1.c.2.A., 45CSR13, R13-2175, 4.1.1., R13-2346, 4.4.1.]

3.4.2. **Retention of records.** The permittee shall retain records of all required monitoring data and support information for a period of at least five (5) years from the date of monitoring sample, measurement, report, application, or record creation date. Support information includes all calibration and maintenance records and all original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required by the permit. Where appropriate, records may be maintained in computerized form in lieu of the above records.

[45CSR§30-5.1.c.2.B.]

3.4.3. **Odors.** For the purposes of 45CSR4, the permittee shall maintain a record of all odor complaints received, any investigation performed in response to such a complaint, and any responsive action(s) taken.

[45CSR§30-5.1.c. State-Enforceable only.]

3.4.4. The permittee shall maintain records and data, kept in a readily accessible location, demonstrating that pieces of equipment exempt from equipment leaks monitoring are (1) not in VHAP service or (2) are in VHAP service for less than 300 hours per year to claim the exemption under 40 C.F.R. § 63.764(e)(2).
[40 C.F.R §63.764(c)(3), 40 C.F.R §63.764(e)(2), 40 C.F.R §63.774(d)(2) and R13-2346, A.11]

3.5. Reporting Requirements

3.5.1. **Responsible official.** Any application form, report, or compliance certification required by this permit to be submitted to the DAQ and/or USEPA shall contain a certification by the responsible official that states that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate and complete.
[45CSR§30-4.4. *and* 5.1.c.3.D.]

3.5.2. A permittee may request confidential treatment for the submission of reporting required under 45CSR§30-5.1.c.3. pursuant to the limitations and procedures of W.Va. Code § 22-5-10 and 45CSR31.
[45CSR§30-5.1.c.3.E.]

3.5.3. Except for the electronic submittal of the annual certification to the USEPA as required in 3.5.5 below, all notices, requests, demands, submissions and other communications required or permitted to be made to the Secretary of DEP and/or USEPA shall be made in writing and shall be deemed to have been duly given when delivered by hand, mailed first class, or by private carrier with postage prepaid to the address(es) set forth below or to such other person or address as the Secretary of the Department of Environmental Protection may designate:

If to the DAQ:

Director
WVDEP
Division of Air Quality
601 57th Street SE
Charleston, WV 25304

Phone: 304/926-0475
FAX: 304/926-0478

If to the US EPA:

Associate Director
Office of Air Enforcement and Compliance Assistance (3AP20)
U. S. Environmental Protection Agency
Region III
1650 Arch Street
Philadelphia, PA 19103-2029

3.5.4. **Certified emissions statement.** The permittee shall submit a certified emissions statement and pay fees on an annual basis in accordance with the submittal requirements of the Division of Air Quality.
[45CSR§30-8.]

3.5.5. **Compliance certification.** The permittee shall certify compliance with the conditions of this permit on the forms provided by the DAQ. In addition to the annual compliance certification, the permittee may be required to submit certifications more frequently under an applicable requirement of this permit. The annual certification shall be submitted to the DAQ and USEPA on or before March 15 of each year, and shall certify compliance for the period ending December 31. The annual certification to the USEPA shall be submitted in electronic format only. It shall be submitted by e-mail to the following address: R3_APD_Permits@epa.gov. The permittee shall maintain a copy of the certification on site for five (5) years from submittal of the certification.
[45CSR§30-5.3.e.]

3.5.6. **Semi-annual monitoring reports.** The permittee shall submit reports of any required monitoring on or before September 15 for the reporting period January 1 to June 30 and on or before March 15 for the reporting period July 1 to December 31. All instances of deviation from permit requirements must be clearly identified in such reports. All required reports must be certified by a responsible official consistent with 45CSR§30-4.4. **[45CSR§30-5.1.c.3.A.]**

3.5.7. **Emergencies.** For reporting emergency situations, refer to Section 2.17 of this permit.

3.5.8. **Deviations.**

a. In addition to monitoring reports required by this permit, the permittee shall promptly submit supplemental reports and notices in accordance with the following:

1. Any deviation resulting from an emergency or upset condition, as defined in 45CSR§30-5.7., shall be reported by telephone or telefax within one (1) working day of the date on which the permittee becomes aware of the deviation, if the permittee desires to assert the affirmative defense in accordance with 45CSR§30-5.7. A written report of such deviation, which shall include the probable cause of such deviations, and any corrective actions or preventative measures taken, shall be submitted and certified by a responsible official within ten (10) days of the deviation.

2. Any deviation that poses an imminent and substantial danger to public health, safety, or the environment shall be reported to the Secretary immediately by telephone or telefax. A written report of such deviation, which shall include the probable cause of such deviation, and any corrective actions or preventative measures taken, shall be submitted by the responsible official within ten (10) days of the deviation.

3. Deviations for which more frequent reporting is required under this permit shall be reported on the more frequent basis.

4. All reports of deviations shall identify the probable cause of the deviation and any corrective actions or preventative measures taken.

[45CSR§30-5.1.c.3.C.]

b. The permittee shall, in the reporting of deviations from permit requirements, including those attributable to upset conditions as defined in this permit, report the probable cause of such deviations and any corrective actions or preventive measures taken in accordance with any rules of the Secretary. **[45CSR§30-5.1.c.3.B.]**

3.5.9. **New applicable requirements.** If any applicable requirement is promulgated during the term of this permit, the permittee will meet such requirements on a timely basis, or in accordance with a more detailed schedule if required by the applicable requirement. **[45CSR§30-4.3.h.1.B.]**

3.6. Compliance Plan

3.6.1. None.

3.7. Permit Shield

3.7.1. The permittee is hereby granted a permit shield in accordance with 45CSR§30-5.6. The permit shield applies provided the permittee operates in accordance with the information contained within this permit.

3.7.2. The following requirements specifically identified are not applicable to the source based on the determinations set forth below. The permit shield shall apply to the following requirements provided the conditions of the determinations are met - None.

3.8. Emergency Operating Scenario

3.8.1. For emergency situations which interrupt the critical supply of natural gas to the public, and which pose a life threatening circumstance to the customer, the permittee is allowed to temporarily replace failed engine(s) as long as all of the following conditions are met:

a. The replacement engine(s) is only allowed to operate until repair of the failed engine(s) is complete, but under no circumstance may the replacement engine(s) operate in excess of sixty (60) days;

b. Both the replacement engine(s) and the repaired failed engine(s) shall not operate at the same time with the exception of any necessary testing of the repaired engine(s) and this testing may not exceed five (5) hours;

c. Potential hourly emissions from the replacement engine(s) are less than or equal to the potential hourly emissions from the engine(s) being replaced;

d. Credible performance emission test data verifying the emission rates associated with the operation of the substitute engine shall be submitted to the Director within five (5) days;

e. The permittee must provide written notification to the Director within five (5) days of the replacement. This notification must contain:

i. Information to support the claim of life threatening circumstances to justify applicability of this emergency provision;

ii. Identification of the engine(s) being temporarily replaced;

iii. The design parameters of the replacement engine(s) including, but not limited to, the design horsepower and emission factors;

iv. Projected duration of the replacement engine(s); and

v. The appropriate certification by a responsible official.

[45CSR§30-12.7]

3.9. Limits On Operation

The permittee shall burn natural gas meeting the FERC requirements exclusively for all combustion equipment. **[45CSR§30-12.7]**

4.0. Source-Specific Requirements [RBR01]

4.1. Limitations and Standards

4.1.1. No person shall cause, suffer, allow or permit emission of smoke and/or particulate matter into the open air from any fuel burning unit which is greater than ten (10) percent opacity based on a six minute block average. **[45CSR§2-3.1.]**

4.1.2. Emissions to the atmosphere from the reboiler stack (RBR01 ~~DEHY 0A~~) shall not exceed the following ~~hourly and annual~~ limitations:

Pollutant	~~Emission Factor[1] (lb/10^6 ft^3)~~	Maximum Potential ~~Annual~~ Emissions ~~Limitations[2]~~ (ton/yr)
Total VOC	~~5.5~~	0.02
NO_x	~~100~~	0.28
CO	~~84~~	0.23
SO_x	~~0.6~~	0.01
PM (Total)	~~7.6~~	0.02

~~(1) AP42, Tables 1.4-1 (Revised 2/98) and 1.4-2 (Revised 3/98).~~
~~(2) Based on a maximum heat input to the reboiler of 0.62 mmBtu/hr (638 ft^3/hr at 1,000 Btu/ft^3 of natural gas) and 8,760 hours per year of operation.~~

[45CSR13, R13-2346, 5.1.1. ~~A.6~~ *(RBR01)*]

4.2. Monitoring Requirements

4.2.1. None.

4.3. Testing Requirements

4.3.1. None.

4.4. Recordkeeping Requirements

4.4.1. None.

4.5. Reporting Requirements

4.5.1. None.

4.6. Compliance Plan

4.6.1. None.

5.0. Source-Specific Requirements [DEHY01~~B~~, F1 ~~DEHY01~~]

5.1. Limitations and Standards

5.1.1. No person shall cause, suffer, allow or permit particulate matter to be discharged from any incinerator into the open air in excess of the quantity determined by use of the following formula:

Emissions (lb/hr) = F x Incinerator Capacity (tons/hr)
Where, the factor, F, is 5.43 for an incinerator with a capacity of less than 15,000 lbs/hr

Calculation for PM Emissions: (5.43) x (0.127 ~~0.0143~~ tons/hr) = 0.69 ~~0.0776~~ lb/hr
[45CSR§6-4.1. *(F1 ~~DEHY01~~)*]

5.1.2. Emission of Visible Particulate Matter - No person shall cause, suffer, allow or permit emission of smoke into the atmosphere from any incinerator which is twenty (20%) percent opacity or greater, except smoke which is less than forty (40%) percent opacity, for a period or periods aggregating no more than eight (8) minutes per start-up.
[45CSR§§6-4.3. and 4.4; 45CSR13, R13-2346, 5.1.4. ~~B.3.~~ *(F1 ~~DEHY01~~)*]

5.1.3. No person shall cause, suffer, allow or permit the emission of particles of unburned or partially burned refuse or ash from any incinerator which are large enough to be individually distinguished in the open air.
[45CSR§6-4.5. *(F1 ~~DEHY01~~)*]

5.1.4. Incinerators, including all associated equipment and grounds, shall be designed, operated and maintained so as to prevent the emission of objectionable odors.
[45CSR§6-4.6.; 45CSR13, R13-2346, 5.1.4. ~~B.3.~~ *(F1 ~~DEHY01~~)*]

5.1.5. No person shall cause, suffer, allow or permit the emission into the open air from any source operation an in-stack sulfur dioxide concentration exceeding 2,000 parts per million by volume from existing source operations, except as provided in 45CSR§10-4.1.a. through 45CSR§10-4.1.e.
[45CSR§10-4.1. *(F1 ~~DEHY01~~)*]

5.1.6. No person shall cause, suffer, allow or permit the combustion of any refinery process gas stream or any other process gas stream that contains hydrogen sulfide in a concentration greater than 50 grains per 100 cubic feet of gas except in the case of a person operating in compliance with an emission control and mitigation plan approved by the Director and U. S. EPA. In certain cases very small units may be considered exempt from this requirement if, in the opinion of the Director, compliance would be economically unreasonable and if the contribution of the unit to the surrounding air quality could be considered negligible.
[45CSR§10-5.1. *(F1 ~~DEHY01~~)*]

5.1.7.~~8~~. The maximum processing/production rate of natural gas through the modified dehydrator unit shall not exceed 23 mm scf/day and 8,395 mm scf/yr based on 8,760 hr/yr of operation.
[45CSR13, R13-2346, 5.1.2. ~~A.5.~~ *(F1 ~~DEHY01~~)*]

5.1.8.~~11.~~ Actual benzene emissions from the dehydrator still column flare [F1] shall not equal or exceed 2,000 pounds per year (less than 0.9 megagrams per year), as determined by the procedures specified in Section 5.2.4. of this permit.
[45CSR13, R13-2346, 5.1.3. ~~A.7.~~ *(F1 ~~DEHY01~~)*]

5.1.9.~~7.~~ Emissions to the atmosphere ~~from the dehydrator still column flare~~ shall not exceed the following hourly and annual limitations:

Emission Point ID	Pollutant	~~Emission Factor~~	Emission Limitations	
			lb/hr	ton/yr~~(2)~~
DEHY01	Total VOC		3.64	15.93
	Benzene		0.10	0.42
	Total HAP		0.60	2.63
F1	Total VOC	~~GRI-GLYCalc Version 3.0~~	0.01 ~~0.84~~	0.03 ~~3.69~~
	NO_x	~~0.068 lb/10^6 Btu(1)~~	0.46 ~~0.11(3)~~	2.02 ~~0.48(3)~~
	CO	~~0.37 lb/10^6 Btu(1)~~	0.03 ~~0.60(3)~~	0.13 ~~2.61(3)~~
	PM Total		0.06	0.23
	PM 2.5		0.06	0.23
	SO_2	~~0.057 lb/10^6 Btu(4)~~	0.01 ~~0.10(3)~~	0.02 ~~0.41(3)~~

~~(1) AP42, Tables 13.5-1 (English Units), "Emission Factors for Flare Operation." Revised 9/91. Reformatted 1/95.~~

~~(2) Based on 8,760 hours per year of operation.~~

~~(3) Based on a Maximum Total Heat Release resulting from burning of the Still Column Flare of 1,607,198 Btu/hr (see below).~~

~~638 ft³/hr of natural gas (ignitor gas) x 1,000 Btu/ft³ = 638,000 Btu/hr~~
~~264 ft³/hr of natural gas (stripping gas) x 1,000 Btu/ft³ = 264,000 Btu/hr~~
~~10 ft³/hr of natural gas (pilot gas) x 1,000 Btu/ft³ = 10,000 Btu/hr~~
~~*30.226 lb/hr of hydrocarbons x 23,000 Btu/lb = 695,198 Btu/hr~~
~~1,607,198 Btu/hr~~

~~*Note that:~~
~~1) 30.226 lb/hr of hydrocarbons is the total uncontrolled regenerator emissions as calculated by the computer program GRI-GLYCalc.~~
~~2) The value of 23,000 Btu/lb of hydrocarbons burned is based on the heat release values for similar type hydrocarbons/fuels: 20-23,000 Btu/lb of Natural Gas; 19,500 Btu/lb of #2 Diesel Oil; and 18,500 Btu/lb of #6 Residual Oil.~~

~~(4) SO_2 emission factor from Columbia Gas Transmission Corporation's Technical Approach Specification, CGT150V2, author: Al Armendariz, creation date: October 1996 (revised July 1997).~~

[45CSR13, R13-2346, 5.1.1. ~~A.12.~~ *(F1, DEHY01)*]

~~5.1.9. Except as noted in 40 CFR § 63.762(b), the permittee shall not shut down equipment that is required to comply with the provisions of MACT subpart HH when emissions are being routed to such equipment, unless such equipment is malfunctioning or if continued operation during startup, shutdown, or malfunction may cause damage to such equipment.~~

~~**[40 CFR § 63.762(b) *(DEHY01)*]**~~

~~During startups, shutdowns, and malfunctions, the permittee shall implement measures to prevent or minimize excess emissions to the maximum extent practical.~~

~~**[40 CFR § 63.762(c) *(DEHY01)*]**~~

5.1.10. The dehydrator still column ~~control device used to reduce HAP emissions shall be a~~ flare [F1] shall be ~~that is~~ designed and operated in accordance with the requirements of 40 CFR § 63.11(b) (See Appendix A to this permit). ~~Per 40 CFR § 63.772(e)(2)(i), a compliance determination for the flare shall be conducted using Method 22 of 40 CFR Part 60, Appendix A, to determine visible emissions. In order for the dehydrator still column flare to be exempt from the control device performance testing requirements per 40 CFR § 63.772(e)(1)(i), the dehydrator still column flare shall be designed and operated in accordance with the requirements of 40 CFR § 63.11(b).~~

[40 C.F.R. § 63.764(a), 45CSR13, R13-2346, 5.1.8. *(F1)* ~~A.10. *(DEHY01)*~~]

5.1.11. The total volatile hazardous air pollutant (VHAP) concentration in the process stream shall be less than 10 per cent by weight.

[45CSR13, R13-2346, 5.1.7. *(F1)*]

5.1.12. The dehydration plant is subject to 40 CFR 63, Subpart HH, "National Emission Standards for Hazardous Air Pollutants From Oil and Natural Gas Production Facilities", the amendments of which became effective October 15, 2012. The provisions set forth in this subpart shall apply at all times. The annual benzene emission limit established in Section 5.1.8. ~~11.~~ of this permit meets the exemption criteria listed in 40 CFR §63.764(e)(1)(ii).

[40 C.F.R. §§ 63.760 and 63.762(a), 45CSR13, R13-2346, 5.1.5. *(F1)*]

In response to an action to enforce the standards set forth in 40 CFR Part 63, Subpart HH, the permittee may assert an affirmative defense to a claim for civil penalties for violations of such standards that are caused by malfunction, as defined in 40 CFR § 63.2. Appropriate penalties may be assessed; however, if you fail to meet your burden of proving all of the requirements in the affirmative defense, the affirmative defense shall not be available for claims for injunctive relief.

[40 C.F.R. § 63.762(d), 45CSR13, R13-2346, 5.1.6. *(F1)*]

~~Records documenting the actual average benzene emissions per year are to be determined in accordance with 40 CFR § 63.772(b)(2) which allows emissions to be calculated using the model GRI-GLYCalc™, Version 3.0 or higher, or through 3 runs of direct measurements using EPA Test Method 18, 40 CFR 60, Appendix A. Should actual annual benzene emissions equal or exceed 2,000 pounds, the control requirements in 40 CFR §63.765 (including equipment leak monitoring of the closed vent system per 40 CFR § 63.765(b)(1) and 40 CFR § 63.771(c)), the monitoring requirements in 40 CFR § 63.773, the record keeping requirements in 40 CFR §63.774, and the reporting requirements in 40 CFR § 63.775 shall immediately become applicable.~~

~~[40 C.F.R. §§ 63.764(e)(1) and (e)(1)(ii), 45CSR13, R13-2346, A.8. *(DEHY01)*]~~

~~5.1.13. The permittee is exempted from preparing and maintaining the dehydration plant's Startup, Shutdown, and Malfunction Plan (SSMP) as required by 40 CFR §63.6(e). This exemption is provided for in 40 CFR §63.762(e) for facilities that meet the exemptions provided in 40 CFR §63.764(e). Should actual annual benzene emissions equal or exceed 2,000 pounds, the requirement to prepare a SSMP shall immediately become applicable.~~

~~[40 C.F.R. §§ 63.762 (d) and (e), 45CSR13, R13-2346, A.9. *(DEHY01)*]~~

5.1.13. **Operation and Maintenance of Air Pollution Control Equipment.** The permittee shall, to the extent practicable, install, maintain, and operate the Deydration Unit Flare, F1, and associated monitoring equipment in a manner consistent with safety and good air pollution control practices for minimizing emissions, or comply with any more stringent limits set forth in this permit or as set forth by any State rule, Federal regulation, or alternative control plan approved by the Secretary.

[45CSR§13-5.11. and R13-2346, 4.1.1. *(F1)*]

5.2. Monitoring Requirements

5.2.1. In order to demonstrate compliance with the flare opacity requirements of condition 5.1.2., the permittee shall conduct a Method 22 opacity test for at least two hours. This test shall demonstrate no visible emissions are observed for more than a total of 5 minutes during any 2 consecutive hour period using 40 CFR 60, Appendix A, Method 22. The permittee shall conduct this test within one (1) year of permit issuance or initial startup whichever is later. The visible emission checks shall determine the presence or absence of visible emissions. At a minimum, the observer must be trained and knowledgeable regarding the effects of background contrast, ambient lighting, observer position relative to lighting, wind, and the presence of uncombined water (condensing water vapor) on the visibility of emissions. This training may be obtained from written materials found in the References 1 and 2 from 40 CFR part 60, Appendix A, Method 22 or from the lecture portion of 40 CFR part 60, Appendix A, Method 9 certification course. Visible emission checks shall be conducted at least once per calendar month.
[40 C.F.R. §63.11(b)(4), 45CSR13, R13-2346, 5.2.1., 45CSR§30-5.1.c. *(F1 ~~DEHY01~~)*]

5.2.2. At a minimum of once per year, sample and analyze the inlet gas stream to the dehy utilizing gas chromatography for the presence of Sulfur. Proof of compliance with the 2000 ppm_v SO_2 limit will be considered demonstrated if the gas chromatograph shows a total sulfur content of 0.57 grains/$100ft^3$ or less. Records shall be maintained on site or at a reasonably available location for a period of no less than five (5) years stating the date and time of analysis and the sulfur content of the gas sampled.
[45CSR§30-5.1.c. *(F1 ~~DEHY01~~)*]

5.2.3. At a minimum of once per year, sample and analyze the inlet gas stream to the dehy utilizing gas chromatography for the presence of H_2S. Proof of compliance with the 50 grains/$100ft^3$ limit will be considered demonstrated if the gas chromatograph shows a total H_2S content of 0.0478 grains/$100ft^3$ or less. Records shall be maintained on site or at a reasonably available location for a period of no less than five (5) years stating the date of analysis and the hydrogen sulfide content of the gas sampled.
[45CSR§30-5.1.c. *(F1 ~~DEHY01~~)*]

5.2.4. *Determination of glycol dehydration unit benzene emissions.* The determination of actual benzene emissions from a glycol dehydration unit shall be made using the procedures of either paragraph i. or ii. below. Emissions shall be determined either uncontrolled, or with federally enforceable controls in place. This requirement will demonstrate compliance with permit section 5.1.8 and 5.1.12.

i. The owner or operator shall determine actual average benzene emissions using the model GRI-GLYCalc™, Version 3.0 or higher, and the procedures presented in the associated GRI-GLYCalc™ Technical Reference Manual. Inputs to the model shall be representative of actual operating conditions of the glycol dehydration unit and may be determined using the procedures documented in the Gas Research Institute (GRI) report entitled "Atmospheric Rich/Lean Method for Determining Glycol Dehydrator Emissions" (GRI-95/0368.1); or

ii. The owner or operator shall determine an average mass rate of benzene emissions in kilograms per hour through direct measurement using the methods in §63.772(a)(1)(i) or (ii), or an alternative method according to §63.7(f). Annual emissions in kilograms per year shall be determined by multiplying the mass rate by the number of hours the unit is operated per year. This result shall be converted to megagrams per year.

[40 C.F.R. §63.772(b)(2), 45CSR13, R13-2346, 5.3.2. *(F1)*]

5.3. Testing Requirements

5.3.1. None.

5.4. Recordkeeping Requirements

5.4.1. Any and all malfunctions of the dehydrator still column flare that increase emissions shall be documented in writing. The following information must be documented for each malfunction:

a) The equipment involved in the malfunction and the cause of the malfunction.
b) The steps taken to correct the malfunction.
c) The steps taken to minimize the emissions during the malfunction.
d) The duration of the malfunction.
e) The estimated increase in emissions during the malfunction.
f) The steps taken to prevent a similar malfunction in the future.

These records shall be maintained on site for the duration of the operation. Certified copies shall be made available to the Director or a duly authorized representative of the Director upon request.
[45CSR13, R13-2346, 5.4.2. ~~A.14.~~ *(F1 ~~DEHY01~~)*]

5.4.2. For the purpose of determining compliance with emission ~~production~~ limitations set forth in Sections 5.1.8. and 5.1.9. of this permit, the permittee shall maintain daily and annual records of the dehydrator unit's operating hours and natural gas flow to the contactor tower (wet or dry gas). The permittee shall also maintain records of any maintenance performed on the equipment. These records shall be maintained on site for a period of five (5) years. C~~ertified c~~opies of these records shall be made available to the Director of the Division of Air Quality or his/her duly authorized representative upon request.
[45CSR13, R13-2346, 5.4.1. ~~B.6.~~; 40 CFR § 63.760(a)(1)(ii) *(F1 ~~DEHY01~~)*]
Note: Meeting the production limits in Section 5.1.7.~~8.~~ will show compliance with flare emission limits in Sections 5.1.8. and 5.1.9.~~7.~~

5.4.3. The permittee shall maintain records of the actual average benzene emissions determinations, on an annual basis, by using the model GRI-GLYCalc™, Version 3.0 or higher, and the procedures presented in the associated GRI-GLYCalc Technical Reference Manual.
[~~40 CFR §63.764(c)(1),~~ 40 CFR §63.774(d)(1)(ii) & 40 CFR §63.772(b)(2), 45CSR13, R13-2346, 5.4.4.]

5.4.4. To demonstrate compliance with section 5.1.11 of this permit, the permittee shall maintain records of the process stream VHAP concentration.
[45CSR13, R13-2346, 5.4.3.]

5.4.5. The permittee shall record the following for the glycol dehydrator flare [F1]:

1. Flare design (i.e., steam-assisted, air-assisted, or non-assisted);
2. All visible emission readings, heat content determinations, flowrate measurements, and exit velocity determinations made during the compliance determination; and
3. All hourly records and other recorded periods when the pilot flame is absent.

[45CSR13, R13-2346, 5.4.5.]

5.4.6. *Malfunctions.* The owner or operator of an affected source subject to this subpart shall maintain records of the occurrence and duration of each malfunction of operation (i.e., process equipment) or the air pollution control equipment and monitoring equipment. The owner or operator shall maintain records of actions taken during

periods of malfunction to minimize emissions in accordance with §63.764(j), including corrective actions to restore malfunctioning process and air pollution control and monitoring equipment to its normal or usual manner of operation.
[40 C.F.R. §63.774(g), 45CSR13, R13-2346, 5.4.6.]

5.4.7. *General Recordkeeping.* The permittee shall maintain all applicable records in accordance with 40 CFR Part 63, Subpart A.
[40 C.F.R. §63.774(a), 45CSR13, R13-2346, 5.4.7.]

5.4.8. **Record of Maintenance of Air Pollution Control Equipment.** For the Dehydration Flare, F1, the permittee shall maintain accurate records of all required pollution control equipment inspection and/or preventative maintenance procedures.
[45CSR13, R13-2346, 4.4.2.]

5.4.9. **Record of Malfunctions of Air Pollution Control Equipment.** For the Dehydration Flare, F1, the permittee shall maintain records of the occurrence and duration of any malfunction or operational shutdown of the air pollution control equipment during which excess emissions occur. For each such case, the following information shall be recorded:

a. The equipment involved.
b. Steps taken to minimize emissions during the event.
c. The duration of the event.
d. The estimated increase in emissions during the event.

For each such case associated with an equipment malfunction, the additional information shall also be recorded:

e. The cause of the malfunction.
f. Steps taken to correct the malfunction.
g. Any changes or modifications to equipment or procedures that would help prevent future recurrences of the malfunction.
[45CSR13, R13-2346, 4.4.3.]

5.5. Reporting Requirements

5.5.1. ~~None.~~ *Affirmative defense for violations of emission standards during malfunction.* The permittee seeking to assert an affirmative defense shall submit a written report to the Administrator with all necessary supporting documentation, that it has met the requirements set forth in section 5.5.2. of this permit. This affirmative defense report shall be included in the first periodic compliance, deviation report or excess emission report otherwise required after the initial occurrence of the violation of the relevant standard (which may be the end of any applicable averaging period). If such compliance, deviation report or excess emission report is due less than 45 days after the initial occurrence of the violation, the affirmative defense report may be included in the second compliance, deviation report or excess emission report due after the initial occurrence of the violation of the relevant standard.
[40 C.F.R. §63.762(d)(2), 45CSR13, R13-2346, 5.5.1.]

5.5.2. To establish the affirmative defense in any action to enforce such a standard, you must timely meet the reporting requirements in Section 5.5.1. and must prove by a preponderance of evidence that:

1. The violation:

a. Was caused by a sudden, infrequent, and unavoidable failure of air pollution control equipment, process equipment, or a process to operate in a normal or usual manner; and

b. Could not have been prevented through careful planning, proper design or better operation and maintenance practices; and

c. Did not stem from any activity or event that could have been foreseen and avoided, or planned for; and

d. Was not part of a recurring pattern indicative of inadequate design, operation, or maintenance; and

2. Repairs were made as expeditiously as possible when a violation occurred. Off-shift and overtime labor were used, to the extent practicable to make these repairs; and

3. The frequency, amount and duration of the violation (including any bypass) were minimized to the maximum extent practicable; and

4. If the violation resulted from a bypass of control equipment or a process, then the bypass was unavoidable to prevent loss of life, personal injury, or severe property damage; and

5. All possible steps were taken to minimize the impact of the violation on ambient air quality, the environment, and human health; and

6. All emissions monitoring and control systems were kept in operation if at all possible, consistent with safety and good air pollution control practices; and

7. All of the actions in response to the violation were documented by properly signed, contemporaneous operating logs; and

8. At all times, the affected source was operated in a manner consistent with good practices for minimizing emissions; and

9. A written root cause analysis has been prepared, the purpose of which is to determine, correct, and eliminate the primary causes of the malfunction and the violation resulting from the malfunction event at issue. The analysis shall also specify, using best monitoring methods and engineering judgment, the amount of any emissions that were the result of the malfunction.

[40 C.F.R. §63.762(d)(1), 45CSR13, R13-2346, 5.5.2.]

5.5.3. *Notification of Compliance Status Report.* The permittee shall submit a Notification of Compliance Status Report as required under 40CFR §63.9(h) within 180 days after the compliance date specified in 40 CFR§63.760(f). In addition to the information required under 40CFR §63.9(h), the Notification of Compliance Status Report shall include the information specified in paragraphs 1. through 12. of this section. This information may be submitted in an operating permit application, in an amendment to an operating permit application, in a separate submittal, or in any combination of the three. If all of the information required under this paragraph has been submitted at any time prior to 180 days after the applicable compliance dates specified in 40 CFR§63.760(f), a separate Notification of Compliance Status Report is not required. If an owner or operator submits the information specified in paragraphs 1. through 12. of this section at different times, and/or different submittals, subsequent submittals may refer to previous submittals instead of duplicating and resubmitting the previously submitted information.

1. If a closed-vent system and a control device other than a flare are used to comply with 40 CFR §63.764, the owner or operator shall submit the information in paragraph c. below and the information in either paragraph a. or b. below.

   a. The condenser design analysis documentation specified in 40 CFR §63.772(e)(4), if the owner or operator elects to prepare a design analysis.

   b. If the owner or operator is required to conduct a performance test, the performance test results including the information specified in paragraphs A. and B. below. Results of a performance test conducted prior to the compliance date of this subpart can be used provided that the test was conducted using the methods specified in 40 CFR §63.772(e)(3) and that the test conditions are representative of current operating conditions. If the owner or operator operates a combustion control device model tested under 40 CFR §63.772(h), an electronic copy of the performance test results shall be submitted via email to Oil_and_Gas_PT@EPA.GOV unless the test results for that model of combustion control device are posted at the following Web site: epa.gov/airquality/oilandgas/.

      A. The percent reduction of HAP or TOC, or the outlet concentration of HAP or TOC (parts per million by volume on a dry basis), determined as specified in 40 CFR §63.772(e)(3); and

      B. The value of the monitored parameters specified in 40 CFR §63.773(d), or a site-specific parameter approved by the permitting agency, averaged over the full period of the performance test.

   c. The results of the closed-vent system initial inspections performed according to the requirements in 40 CFR §§63.773(c)(2)(i) and (ii).

2. If a closed-vent system and a flare are used to comply with 40 CFR §63.764, the owner or operator shall submit performance test results including the information in paragraphs a. and b. below. The owner or operator shall also submit the information in paragraph c. below.

   a. All visible emission readings, heat content determinations, flowrate measurements, and exit velocity determinations made during the compliance determination required by 40 CFR §63.772(e)(2).

   b. A statement of whether a flame was present at the pilot light over the full period of the compliance determination.

   c. The results of the closed-vent system initial inspections performed according to the requirements in 40 CFR §§63.773(c)(2)(i) and (ii).

3. For permittees subject to the provisions specified in 40 CFR §63.769, the permittee shall submit the information required by 40 CFR §61.247(a), except that the initial report required in 40 CFR §61.247(a) shall be submitted as a part of the Notification of Compliance Status Report required in Section 5.5.3. The owner or operator shall also submit the information specified in paragraphs a. and b. below.

   a. The number of each equipment (e.g., valves, pumps, etc.) excluding equipment in vacuum service, and

   b. Any change in the information submitted in this paragraph shall be provided to the Administrator as a part of subsequent Periodic Reports described in 40 CFR §63.775(e)(2)(iv).

4. The permittee shall submit one complete test report for each test method used for a particular source.

   a. For additional tests performed using the same test method, the results specified in Section 5.5.3.1.b. shall be submitted, but a complete test report is not required.

   b. A complete test report shall include a sampling site description, description of sampling and analysis procedures and any modifications to standard procedures, quality assurance procedures, record of operating conditions during the test, record of preparation of standards, record of calibrations, raw data sheets for field sampling, raw data sheets for field and laboratory analyses, documentation of calculations, and any other information required by the test method.

5. For each control device other than a flare used to meet the requirements of 40 CFR §63.764, the owner or operator shall submit the information specified in paragraphs a. through c. below for each operating parameter required to be monitored in accordance with the requirements of 40 CFR §63.773(d).

   a. The minimum operating parameter value or maximum operating parameter value, as appropriate for the control device, established by the owner or operator to define the conditions at which the control device must be operated to continuously achieve the applicable performance requirements of 40 CFR §63.771(d)(1) or (e)(3)(ii).

   b. An explanation of the rationale for why the owner or operator selected each of the operating parameter values established in 40 CFR §63.773(d)(5). This explanation shall include any data and calculations used to develop the value and a description of why the chosen value indicates that the control device is operating in accordance with the applicable requirements of 40 CFR§§63.771(d)(1), (e)(3)(ii) or (f)(1).

   c. A definition of the source's operating day for purposes of determining daily average values of monitored parameters. The definition shall specify the times at which an operating day begins and ends.

   d. For each carbon adsorber, the predetermined carbon replacement schedule as required in 40 CFR §63.771(d)(5)(i).

6. Results of any continuous monitoring system performance evaluations shall be included in the Notification of Compliance Status Report.

7. After a title V permit has been issued to the owner or operator of an affected source, the owner or operator of such source shall comply with all requirements for compliance status reports contained in the source's title V permit, including reports required under this subpart. After a title V permit has been issued to the owner or operator of an affected source, and each time a notification of compliance status is required under this subpart, the owner or operator of such source shall submit the notification of compliance status to the appropriate permitting authority following completion of the relevant compliance demonstration activity specified in this subpart.

8. The permittee that elects to comply with the requirements of 40 CFR §63.765(b)(1)(ii) shall submit the records required under 40 CFR §63.774(c).

9. The permittee shall submit the analysis performed under 40 CFR §63.760(a)(1).

10. The permittee shall submit a statement as to whether the source has complied with the requirements of 40 CFR Part 63, subpart HH.

11. The permittee shall submit the analysis prepared under 40 CFR §63.771(e)(2) to demonstrate the conditions by which the facility will be operated to achieve the HAP emission reduction of 95.0 percent, or the BTEX limit in 40 CFR §63.765(b)(1)(iii), through process modifications or a combination of process modifications and one or more control devices.

12. If a cover is installed to comply with 40 CFR §63.764, the results of the initial inspection performed according to the requirements specified in 40 CFR §63.773(c)(2)(iii).

13. If the permittee installs a combustion control device model tested under the procedures in 40 CFR §63.772(h), the data listed under 40 CFR §63.772(h)(8).

14. For each combustion control device model tested under 40 CFR §63.772(h), the information listed in paragraphs a. through f. below.
    a. Name, address and telephone number of the control device manufacturer.
    b. Control device model number.
    c. Control device serial number.
    d. Date the model of control device was tested by the manufacturer.
    e. Manufacturer's HAP destruction efficiency rating.
    f. Control device operating parameters, maximum allowable inlet gas flowrate.

[40 CFR §63.775(d), 45CSR13, R13-2346, 5.5.3.]

5.5.4. *Notification of process change.* Whenever a process change is made, or a change in any of the information submitted in the Notification of Compliance Status Report, the owner or operator shall submit a report within 180 days after the process change is made or as a part of the next Periodic Report as required under 40 CFR §63.775(e), whichever is sooner. The report shall include:

a. A brief description of the process change;

b. A description of any modification to standard procedures or quality assurance procedures;

c. Revisions to any of the information reported in the original Notification of Compliance Status Report under Section 5.5.3.; and

d. Information required by the Notification of Compliance Status Report under Section 5.5.3. for changes involving the addition of processes or equipment.

[40 CFR §63.775(f), 45CSR13, R13-2346, 5.5.4.]

5.5.5. *Electronic reporting.*

1. Within 60 days after the date of completing each performance test (defined in 40 CFR §63.2), you must submit the results of the performance tests to EPA's WebFIRE database by using the Compliance and Emissions Data Reporting Interface (CEDRI) that is accessed through EPA's Central Data Exchange (CDX) (www.epa.gov/cdx). Performance test data must be submitted in the file format generated through use of EPA's Electronic Reporting Tool (ERT) (see http://www.epa.gov/ttn/chief/ert/index.html). Only data collected using test methods on the ERT Web site are subject to this requirement for submitting reports electronically to WebFIRE. Owners or operators who claim that some of the information being

submitted for performance tests is confidential business information (CBI) must submit a complete ERT file including information claimed to be CBI on a compact disk or other commonly used electronic storage media (including, but not limited to, flash drives) to EPA. The electronic media must be clearly marked as CBI and mailed to U.S. EPA/OAPQS/CORE CBI Office, Attention: WebFIRE Administrator, MD C404-02, 4930 Old Page Rd., Durham, NC 27703. The same ERT file with the CBI omitted must be submitted to EPA via CDX as described earlier in this paragraph. At the discretion of the delegated authority, you must also submit these reports, including the confidential business information, to the delegated authority in the format specified by the delegated authority.

2. All reports not subject to the requirements in Section 5.5.5.1. must be sent to the Administrator at the appropriate address listed in 40 CFR §63.13. The Administrator or the delegated authority may request a report in any form suitable for the specific case (e.g., by commonly used electronic media such as Excel spreadsheet, on CD or hard copy). The Administrator retains the right to require submittal of reports subject to Section 5.5.5.1. in paper format.

[40 CFR §63.775(g), 45CSR13, R13-2346, 5.5.5.]

5.5.6. *General Reporting Requirements.* The permittee shall submit all applicable reports in accordance with 40 CFR, Part 63, Subpart A.

[40 CFR §63.775(a), 45CSR13, R13-2346, 5.5.6.]

5.6. Compliance Plan

5.6.1. None.

6.0. Source-Specific Requirements [EN07, EN08, EN09, AUX04]

6.1. Limitations and Standards

6.1.1. Maximum emissions from the 810 hp Caterpillar - Model G3512 natural gas fired reciprocating engine (EN07) shall not exceed the following limits:

Pollutant	Maximum Hourly Emissions (lb/hr)	Maximum Annual Emissions (tpy)
Nitrogen Oxides	6.16	26.99
Carbon Monoxide	2.86	12.51
Volatile Organic Compounds	0.71	3.13
Formaldehyde	0.18	0.79

To demonstrate compliance, the quantity of natural gas that shall be consumed in engine EN07 shall not exceed 6,622 cubic feet per hour and 58.01 x 10^6 cubic feet per year.
[45CSR13, R13-2175, 5.1.1. and 5.1.2. *(EN07)*]

6.1.2. Maximum emissions from the 750 hp Ajax DPC-2804LE natural gas fired reciprocating engine (EN09) shall not exceed the following limits:

Pollutant	Maximum Hourly Emissions (lb/hr)	Maximum Annual Emissions (tpy)
Nitrogen Oxides	1.66	7.2
Carbon Monoxide	1.24	5.4
Volatile Organic Compounds	0.5	2.2
Formaldehyde	0.33	1.43

To demonstrate compliance, the quantity of natural gas that shall be consumed in engine EN09 equipped with an oxidation catalyst (CC01) shall not exceed 5,614 cubic feet per hour and 49.18 x 10^6 cubic feet per year.
[45CSR13, R13-2175, 5.1.3. and 5.1.4. *(EN09)*]

6.1.3. Requirements for use of Catalytic Reduction Devices - No person shall knowingly:

a. Remove or render inoperative the Cameron Catalytic Converter (CC01);
b. Install any part or component when the principal effect of the part or component is to bypass, defeat or render inoperative the Cameron Catalytic Converter (CC01); or
c. Cause or allow engine exhaust gases to bypass the Cameron Catalytic Converter (CC01).

[45CSR13, R13-2175, 5.1.5. *(CC01)*]

6.1.4. The auxiliary generator (AUX04), Caterpillar Model No. G3512, shall not exceed the Maximum Design Heat Input (MDHI) of 6.00 mmBtu/hr as calculated using a natural gas heat content of 1,020 Btu/ft^3; and shall combust only natural gas.
[45CSR13, R13-2346, 6.1.1. ~~A.1.~~ *(AUX04)*]

6.1.5. Emission rates from the operation of the auxiliary generator (AUX04) shall not exceed the following limits:

Pollutant	pounds/hour[(1)]	tons/year[(2)]
Carbon Monoxide (CO)	2.85	2.14
Oxides of Nitrogen (NO_x)	3.57	2.68
Total Suspended Particulate (TSP)	0.05	0.04
Particulate Matter less than 10 microns (PM_{10})	0.05	0.04
Sulfur Dioxide (SO_2)	0.01	0.01
Volatile Organic Compounds (VOCs)	1.28	0.96

(1) All pound/hour limits are instantaneous limits.
(2) The annual limits represent a twelve (12) month rolling total limits.

[45CSR13, R13-2346, 6.1.2. ~~A.2.~~ *(AUX04)*]

6.1.6. The combustion of natural gas in the auxiliary generator (AUX04) shall not exceed 8,823,000 cubic feet on an annual basis. The annual auxiliary generator fuel usage shall be calculated using a twelve (12) month rolling total. A twelve (12) month rolling total shall mean the sum of the natural gas consumed for the previous twelve (12) consecutive months.

[45CSR13, R13-2346, 6.1.3. ~~A.3.~~ *(AUX04)*]

6.1.7. For engines EN07 and EN08, the permittee shall comply with the requirements in Table 2d and the operating limitations in Table 2b to 40 CFR part 63, subpart ZZZZ by October 19, 2013.

a. For EN07, the permittee must comply with any operating limitations approved by the Administrator and:

i. Limit concentration of CO in the stationary RICE exhaust to 47 ppmvd or less at 15% O_2; or

ii. Reduce CO emissions by 93 percent or more.

b. For EN08:

i. Change oil and filter every 4,320 hours of operation or annually, whichever comes first. Sources have the option to utilize an oil analysis program as described in 40 CFR §63.6625(i) in order to extend the specified oil change requirement;

ii. Inspect spark plugs every 4,320 hours of operation or annually, whichever comes first; and

iii. Inspect all hoses and belts every 4,320 hours of operation or annually, whichever comes first, and replace as necessary.

c. The permittee shall be in compliance with the general requirements of 40 CFR § 63.6605.

d. For EN08, the permittee shall meet the applicable general provisions specified in Table 8 of 40 C.F.R. 63, Subpart ZZZZ with the exception of §§63.7(b) and (c), 63.8(e), (f)(4), and (f)(6), and 63.9(b)-(e), (g) and (h) which do not apply per 40 C.F.R. §63.6645(a)(5).

e. For EN07, the permittee shall meet the applicable general provisions specified in Table 8 of 40 C.F.R. 63, Subpart ZZZZ.

f. For EN07, the permittee shall demonstrate initial compliance according to 40 C.F.R. §63.6630 and Table 5 of 40 C.F.R. 63, Subpart ZZZZ.

g. For EN07, the permittee shall comply with the continuous compliance requirements of 40 C.F.R. §63.6635.

h. The permittee shall demonstrate continuous compliance with the limits specified in 6.1.7. a. and 6.1.7.b. according to the methods specified in Table 6 of 40 C.F.R. 63, Subpart ZZZZ.

For EN07, you must demonstrate continuous compliance by:

i. Conducting performance tests for CO every 8,760 hours or 3 years, whichever comes first, to demonstrate that the required CO percent reduction is achieved or that your emissions remain at or below the CO concentration limit; and

ii. Collecting the approved operating parameter (if any) data according to §63.6625(b); and

iii. Reducing these data to 4-hour rolling averages; and

iv. Maintaining the 4-hour rolling averages within the operating limitations for the operating parameters established during the performance test.

For EN08, you must demonstrate continuous compliance by:

i. Operating and maintaining the stationary RICE according to the manufacturer's emission-related operation and maintenance instructions; or

ii. Develop and follow your own maintenance plan which must provide to the extent practicable for the maintenance and operation of the engine in a manner consistent with good air pollution control practice for minimizing emissions.

[40 C.F.R. §§63.6595(a)(1), 63.6603(a), 63.6605, 63.6630, 63.6635, 63.6640(a), 63.6645(a)(5), 63.6665, Tables 2b, 2d, 5, 6 and 8]

6.1.8. **Operation and Maintenance of Air Pollution Control Equipment.** The permittee shall, to the extent practicable, install, maintain, and operate the control device listed as CC01 and associated monitoring equipment in a manner consistent with safety and good air pollution control practices for minimizing emissions, or comply with any more stringent limits set forth in this permit or as set forth by any State rule, Federal regulation, or alternative control plan approved by the Secretary.
[45CSR13 - R13-2175, 4.1.2. *(CC01)*]

6.2. Monitoring Requirements

6.2.1. Catalytic Oxidizer Control Devices - The permittee shall regularly inspect, properly maintain and/or replace catalytic reduction devices and auxiliary air pollution control devices to ensure functional and effective operation of the engine's physical and operational design. The permittee shall ensure proper operation, maintenance and performance of catalytic reduction devices and auxiliary air pollution control devices by:

a. Maintaining proper operation of the automatic air/fuel ratio controller or automatic feedback controller.

b. Following operating and maintenance recommendations of the catalyst element manufacturer.

[45CSR13 - R13-2175, 5.2.1. *(CC01)*]

6.2.2. a. For EN07, the permittee shall comply with the Monitoring, Installation, Collection, Operation and Maintenance Requirements of 40 CFR §§63.6625(a), (b), (h) and (j).

b. For EN08, the permittee shall comply with the Monitoring, Installation, Collection, Operation and Maintenance Requirements of 40 CFR §§63.6625(e), (h) and (j).

[40 C.F.R. §63.6625]

6.3. Testing Requirements

6.3.1. The permittee shall demonstrate compliance with the CO and NO_x emissions limit by testing the engine exhaust using a portable analyzer on a quarterly basis. After two consecutive tests proving the engine emissions to be in compliance, the permittee may test the engine once every six months. If any test result shows the engine to be out of compliance, the permittee shall return to testing the engine every quarter until two consecutive tests show the engine emissions to be in compliance. Records of the test results and test dates shall be maintained on site for a period of at least five (5) years and shall be made available to any authorized representative of the Secretary, upon request.

[45CSR§30-5.1.c.3.C. *(EN07)*]

6.3.2. For EN07, the permittee shall comply with the testing requirements established in 40 CFR §§63.6612, 63.6615, and 63.6620, and Tables 3, 4, and 5 to 40 CFR Part 63, Subpart ZZZZ.

[40 C.F.R. §§63.6612, 63.6615, 63.6620 and Tables 3, 4, and 5]

6.4. Recordkeeping Requirements

6.4.1. To demonstrate compliance with Sections 6.1.1. and 6.1.2., the permittee shall maintain monthly records and a 12-month rolling total of the amount of natural gas consumed in each engine and the hours of operation of each engine. Said records shall be maintained on site or in a readily accessible off-site location maintained by the permittee for a period of five (5) years. Said records shall be readily available to the Director of the Division of Air Quality or his/her duly authorized representative for expeditious inspection and review. Any records submitted to the agency pursuant to a requirement of this permit or upon request by the Director shall be certified by a responsible official.

[45CSR13, R13-2175, 5.3.1. *(EN07, EN09)* and 45CSR§30-5.1.c.]

6.4.2. For the purpose of determining compliance with the maximum natural gas throughput limits for the auxiliary generator (AUX04) set forth in Section 6.1.6. of this permit, the permittee shall maintain a monthly certified record of the date(s) the generator was used, the amount of natural gas consumed, and the aggregated amount of natural gas consumed for the previous twelve (12) months. These records shall be maintained on site for a period of five (5) years. Certified copies of these records shall be made available to the Director of the Division of Air Quality or his/her duly authorized representative upon request.

[45CSR13, R13-2346, 6.4.1. ~~B.5.~~ *(AUX04)* and 45CSR§30-5.1.c.]

6.4.3. The permittee shall comply with the recordkeeping requirements of 40 CFR §§63.6655 except paragraphs (c), (e), and (f) for EN07, and (c) and (f) for EN08.

[40 C.F.R. §63.6655]

6.4.4. **Record of Malfunctions of Air Pollution Control Equipment.** For the control device listed as CC01, the permittee shall maintain records of the occurrence and duration of any malfunction or operational shutdown of the air pollution control equipment during which excess emissions occur. For each such case, the following information shall be recorded:

a. The equipment involved.
b. Steps taken to minimize emissions during the event.
c. The duration of the event.
d. The estimated increase in emissions during the event.

For each such case associated with an equipment malfunction, the additional information shall also be recorded:

e. The cause of the malfunction.
f. Steps taken to correct the malfunction.
g. Any changes or modifications to equipment or procedures that would help prevent future recurrences of the malfunction.

[45CSR13, R13-2175, 4.1.3. *(CC01)*]

6.5. Reporting Requirements

6.5.1. For EN07, the permittee shall comply with the reporting requirements of 40 CFR §§63.6640(b), 63.6640(e), and 63.6650, except paragraph (g).
[40 C.F.R. §§63.6640(b), 63.6640(e), and 63.6650]

6.6. Compliance Plan

6.6.1. None.

7.0. 40 CFR Part 60, Subpart JJJJ Requirements [EN09]

7.1. Limitations and Standards

7.1.1. The provisions of 40CFR60 Subpart JJJJ are applicable to owners, and operators of stationary spark ignition (SI) internal combustion engines (ICE) as specified below. For the purposes of this subpart, the date that construction commences is the date the engine is ordered by the owner or operator.

a. Owners and operators of stationary SI ICE that commence construction after June 12, 2006, where the stationary SI ICE are manufactured:

1. On or after January 1, 2008, for lean burn engines with a maximum engine power greater than or equal to 500 HP and less than 1,350 HP.

[40CFR§60.4230(a)(4)(ii); 45CSR13 - R13-2175, 6.1.1. and 45CSR16]

7.1.2. Owners and operators of stationary SI ICE with a maximum engine power greater than or equal to 75 KW (100 HP) (except gasoline and rich burn engines that use LPG) must comply with the emission standards below for their stationary SI ICE. For owners and operators of stationary SI ICE with a maximum engine power greater than or equal to 100 HP manufactured prior to January 1, 2011 that were certified to the certification emission standards in 40 CFR part 1048 applicable to engines that are not severe duty engines, if such stationary SI ICE was certified to a carbon monoxide (CO) standard above the standard in the Table below, then the owners and operators may meet the CO certification (not field testing) standard for which the engine was certified.

Engine type and fuel	Maximum engine power	Manufacture date	Emission standards[a]					
			g/HP-hr			ppmvd at 15% O_2		
			NO_X	CO	VOC[b]	NO_X	CO	VOC[b]
Non-Emergency SI Lean Burn Natural Gas and LPG	500≤HP<1,350	after 7/1/2010	1	2	0.7	82	270	60

[a] Owners and operators of stationary non-certified SI engines may choose to comply with the emission standards in units of either g/HP-hr or ppmvd at 15 percent O_2.

[b] For purposes of this subpart, when calculating emissions of volatile organic compounds, emissions of formaldehyde should not be included.

[40CFR§60.4233(e) and Table 1; 45CSR13 - R13-2175, 6.2.1. and 45CSR16]

7.1.3. Owners and operators of stationary SI ICE that are required to meet standards that reference 40 CFR 1048.101 must, if testing their engines in use, meet the standards in that section applicable to field testing, except as indicated in Section 7.1.2.

[40CFR§60.4233(h); 45CSR13 - R13-2175, 6.2.2. and 45CSR16]

7.1.4. Owners and operators of stationary SI ICE must operate and maintain stationary SI ICE that achieve the emission standards as required in Section 7.1.2. over the entire life of the engine.

[40CFR§60.4234; 45CSR13 - R13-2175, 6.2.3. and 45CSR16]

7.1.5. After July 1, 2009, owners and operators may not install stationary SI ICE with a maximum engine power of

greater than or equal to 500 HP that do not meet the applicable requirements in 40CFR§60.4233, except that lean burn engines with a maximum engine power greater than or equal to 500 HP and less than 1,350 HP that do not meet the applicable requirements in 40CFR§60.4233 may not be installed after January 1, 2010. **[40CFR§60.4236(b); 45CSR13 - R13-2175, 6.3.1. and 45CSR16]**

7.2. Compliance Requirements for Owners and Operators

7.2.1. If you are an owner or operator of a stationary SI internal combustion engine and must comply with the emission standards specified in Section 7.1.2., you must demonstrate compliance according to one of the methods specified in paragraphs 1. and 2. below:

1. Purchasing an engine certified according to procedures specified in 40CFR60 subpart JJJJ, for the same model year and demonstrating compliance according to one of the methods specified below:

   a. If you operate and maintain the certified stationary SI internal combustion engine and control device according to the manufacturer's emission-related written instructions, you must keep records of conducted maintenance to demonstrate compliance, but no performance testing is required if you are an owner or operator. You must also meet the requirements as specified in 40 CFR part 1068, subparts A through D, as they apply to you. If you adjust engine settings according to and consistent with the manufacturer's instructions, your stationary SI internal combustion engine will not be considered out of compliance.

   b. If you do not operate and maintain the certified stationary SI internal combustion engine and control device according to the manufacturer's emission-related written instructions, your engine will be considered a non-certified engine, and you must demonstrate compliance in accordance with the following:

      If you are an owner or operator of a stationary SI internal combustion engine greater than 500 HP, you must keep a maintenance plan and records of conducted maintenance and must, to the extent practicable, maintain and operate the engine in a manner consistent with good air pollution control practice for minimizing emissions. In addition, you must conduct an initial performance test within 1 year of engine startup and conduct subsequent performance testing every 8,760 hours or 3 years, whichever comes first, thereafter to demonstrate compliance.

2. Purchasing a non-certified engine and demonstrating compliance with the emission standards specified in Section 7.1.2. and according to the requirements specified in 40CFR§60.4244, as applicable, and according to the following:

   If you are an owner or operator of a stationary SI internal combustion engine greater than 500 HP, you must keep a maintenance plan and records of conducted maintenance and must, to the extent practicable, maintain and operate the engine in a manner consistent with good air pollution control practice for minimizing emissions. In addition, you must conduct an initial performance test and conduct subsequent performance testing every 8,760 hours or 3 years, whichever comes first, thereafter to demonstrate compliance.
   [40CFR§§60.4243(a)(1), (a)(2), (a)(2)(iii), (b), (b)(1), (b)(2), and (b)(2)(ii); 45CSR13 - R13-2175, 6.4.1. and 45CSR16]

7.2.2. Owners and operators of stationary SI natural gas fired engines may operate their engines using propane for a

maximum of 100 hours per year as an alternative fuel solely during emergency operations, but must keep records of such use. If propane is used for more than 100 hours per year in an engine that is not certified to the emission standards when using propane, the owners and operators are required to conduct a performance test to demonstrate compliance with the emission standards of Section 7.1.2.
[40CFR§60.4243(e); 45CSR13 - R13-2175, 6.4.2. and 45CSR16]

7.2.3. It is expected that air-to-fuel ratio controllers will be used with the operation of three-way catalysts/non-selective catalytic reduction. The AFR controller must be maintained and operated appropriately in order to ensure proper operation of the engine and control device to minimize emissions at all times. **[40CFR§60.4243(g); 45CSR13 - R13-2175, 6.4.3. and 45CSR16]**

7.3. Testing Requirements for Owners and Operators

7.3.1. Owners and operators of stationary SI ICE who conduct performance tests must follow the procedures in paragraphs a. through f. of this section.

a. Each performance test must be conducted within 10 percent of 100 percent peak (or the highest achievable) load and according to the requirements in §60.8 and under the specific conditions that are specified by Table 2 to 40 C.F.R. part 60, subpart JJJJ.

b. You may not conduct performance tests during periods of startup, shutdown, or malfunction, as specified in §60.8(c). If your stationary SI internal combustion engine is non-operational, you do not need to startup the engine solely to conduct a performance test; however, you must conduct the performance test immediately upon startup of the engine.

c. You must conduct three separate test runs for each performance test required in this section, as specified in §60.8(f). Each test run must be conducted within 10 percent of 100 percent peak (or the highest achievable) load and last at least 1 hour.

d. To determine compliance with the NO_X mass per unit output emission limitation, convert the concentration of NO_X in the engine exhaust using Equation 1 of this section:

$$ER = \frac{C_d \times 1.912 \times 10^{-3} \times Q \times T}{HP - hr} \qquad \text{(Eq. 1)}$$

Where:
ER = Emission rate of NO_X in g/HP-hr.
C_d = Measured NO_X concentration in parts per million by volume (ppmv).
1.912×10^{-3} = Conversion constant for ppm NO_X to grams per standard cubic meter at 20 degrees Celsius.
Q = Stack gas volumetric flow rate, in standard cubic meter per hour, dry basis.
T = Time of test run, in hours.
HP-hr = Brake work of the engine, horsepower-hour (HP-hr).

e. To determine compliance with the CO mass per unit output emission limitation, convert the concentration of CO in the engine exhaust using Equation 2 of this section:

$$ER = \frac{C_d \times 1.164 \times 10^{-3} \times Q \times T}{HP - hr} \qquad \text{(Eq. 2)}$$

Where:
ER = Emission rate of CO in g/HP-hr.
C_d= Measured CO concentration in ppmv.
1.164×10^{-3} = Conversion constant for ppm CO to grams per standard cubic meter at 20 degrees Celsius.
Q = Stack gas volumetric flow rate, in standard cubic meters per hour, dry basis.
T = Time of test run, in hours.
HP-hr = Brake work of the engine, in HP-hr.

f. For purposes of this subpart, when calculating emissions of VOC, emissions of formaldehyde should not be included. To determine compliance with the VOC mass per unit output emission limitation, convert the concentration of VOC in the engine exhaust using Equation 3 of this section:

$$ER = \frac{C_d \times 1.833 \times 10^{-3} \times Q \times T}{HP - hr} \qquad \text{(Eq. 3)}$$

Where:
ER = Emission rate of VOC in g/HP-hr.
C_d= VOC concentration measured as propane in ppmv.
1.833×10^{-3} = Conversion constant for ppm VOC measured as propane, to grams per standard cubic meter at 20 degrees Celsius.
Q = Stack gas volumetric flow rate, in standard cubic meters per hour, dry basis.
T = Time of test run, in hours.
HP-hr = Brake work of the engine, in HP-hr.

g. If the owner/operator chooses to measure VOC emissions using either Method 18 of 40 CFR part 60, appendix A, or Method 320 of 40 CFR part 63, appendix A, then it has the option of correcting the measured VOC emissions to account for the potential differences in measured values between these methods and Method 25A. The results from Method 18 and Method 320 can be corrected for response factor differences using Equations 4 and 5 of this section. The corrected VOC concentration can then be placed on a propane basis using Equation 6 of this section.

$$RF_i = C_{Mi} / C_{Ai} \qquad \text{(Eq. 4)}$$

Where:
RF_i= Response factor of compound i when measured with EPA Method 25A.
C_{Mi}= Measured concentration of compound i in ppmv as carbon.
C_{Ai}= True concentration of compound i in ppmv as carbon.

$$C_{icorr} = RF_1 \times C_{imeas} \qquad \text{(Eq. 5)}$$

Where:
C_{icorr}= Concentration of compound i corrected to the value that would have been measured by EPA Method 25A, ppmv as carbon.
C_{imeas}= Concentration of compound i measured by EPA Method 320, ppmv as carbon.

$$C_{peq} = 0.6098 \times C_{icorr} \qquad \text{(Eq. 6)}$$

Where:
C_{Peq}= Concentration of compound i in mg of propane equivalent per DSCM.
[40CFR§§60.4244(a)-(g); 45CSR13 - R13-2175, 6.5.1. and 45CSR16]

7.4. Notification, Reports, and Records for Owners and Operators

7.4.1. Owners or operators of stationary SI ICE must meet the following notification, reporting and recordkeeping requirements.

a. Owners and operators of all stationary SI ICE must keep records of the information in paragraphs (a)(1) through (4) of this section.

1. All notifications submitted to comply with this subpart and all documentation supporting any notification.

2. Maintenance conducted on the engine.

3. If the stationary SI internal combustion engine is a certified engine, documentation from the manufacturer that the engine is certified to meet the emission standards and information as required in 40 CFR parts 90 and 1048.

4. If the stationary SI internal combustion engine is not a certified engine or is a certified engine operating in a non-certified manner and subject to §60.4243(a)(2), documentation that the engine meets the emission standards.

b. For all stationary SI emergency ICE greater than or equal to 500 HP manufactured on or after July 1, 2010, that do not meet the standards applicable to non-emergency engines, the owner or operator of must keep records of the hours of operation of the engine that is recorded through the non-resettable hour meter. For all stationary SI emergency ICE greater than or equal to 130 HP and less than 500 HP manufactured on or after July 1, 2011 that do not meet the standards applicable to non-emergency engines, the owner or operator of must keep records of the hours of operation of the engine that is recorded through the non-resettable hour meter. For all stationary SI emergency ICE greater than 25 HP and less than 130 HP manufactured on or after July 1, 2008, that do not meet the standards applicable to non-emergency engines, the owner or operator of must keep records of the hours of operation of the engine that is recorded through the non-resettable hour meter. The owner or operator must document how many hours are spent for emergency operation, including what classified the operation as emergency and how many hours are spent for non-emergency operation.

c. Owners and operators of stationary SI ICE greater than or equal to 500 HP that have not been certified by an engine manufacturer to meet the emission standards in §60.4231 must submit an initial notification as required in §60.7(a)(1). The notification must include the information in paragraphs (c)(1) through (5) of this section.

1. Name and address of the owner or operator;

2. The address of the affected source;

3. Engine information including make, model, engine family, serial number, model year, maximum engine power, and engine displacement;

4. Emission control equipment; and

5. Fuel used.

d. Owners and operators of stationary SI ICE that are subject to performance testing must submit a copy of each performance test as conducted in §60.4244 within 60 days after the test has been completed.

[40CFR§§60.4245(a)-(d); 45CSR13 - R13-2175, 6.6.1. and 45CSR16]

7.5. Compliance Plan

7.5.1. None.

Appendix A

The following reflect 40 C.F.R § 63.11(b) requirements as of June 6, 2006 and are subject to change.

§ 63.11 Control device requirements.

(b) *Flares.*

(1) Owners or operators using flares to comply with the provisions of this part shall monitor these control devices to assure that they are operated and maintained in conformance with their designs. Applicable subparts will provide provisions stating how owners or operators using flares shall monitor these control devices.

(2) Flares shall be steam-assisted, air-assisted, or non-assisted.

(3) Flares shall be operated at all times when emissions may be vented to them.

(4) Flares shall be designed for and operated with no visible emissions, except for periods not to exceed a total of 5 minutes during any 2 consecutive hours. Test Method 22 in appendix A of part 60 of this chapter shall be used to determine the compliance of flares with the visible emission provisions of this part. The observation period is 2 hours and shall be used according to Method 22.

(5) Flares shall be operated with a flame present at all times. The presence of a flare pilot flame shall be monitored using a thermocouple or any other equivalent device to detect the presence of a flame.

(6) An owner/operator has the choice of adhering to the heat content specifications in paragraph (b)(6)(ii) of this section, and the maximum tip velocity specifications in paragraph (b)(7) or (b)(8) of this section, or adhering to the requirements in paragraph (b)(6)(i) of this section.

(i) (A) Flares shall be used that have a diameter of 3 inches or greater, are nonassisted, have a hydrogen content of 8.0 percent (by volume) or greater, and are designed for and operated with an exit velocity less than 37.2 m/sec (122 ft/sec) and less than the velocity V_{max}, as determined by the following equation:

$V_{max} = (X_{H2} - K_1) * K_2$

Where:

V_{max} = Maximum permitted velocity, m/sec.

K_1 = Constant, 6.0 volume-percent hydrogen.

K_2 = Constant, 3.9(m/sec)/volume-percent hydrogen.

X_{H2} = The volume-percent of hydrogen, on a wet basis, as calculated by using the American Society for Testing and Materials (ASTM) Method D1946–77. (Incorporated by reference as specified in §63.14).

(B) The actual exit velocity of a flare shall be determined by the method specified in paragraph (b)(7)(i) of this section.

(ii) Flares shall be used only with the net heating value of the gas being combusted at 11.2 MJ/scm (300 Btu/scf) or greater if the flare is steam-assisted or air-assisted; or with the net heating value of the gas being combusted at 7.45 M/scm (200 Btu/scf) or greater if the flares is non-assisted. The net heating value of the gas being combusted in a flare shall be calculated using the following equation:

$$H_T = K \sum_{i=1}^{n} C_i H_i$$

Where:

H_T = Net heating value of the sample, MJ/scm; where the net enthalpy per mole of offgas is based on combustion at 25 °C and 760 mm Hg, but the standard temperature for determining the volume corresponding to one mole is 20 °C.

K = Constant =

$$1.740\times10^{-7}\left(\frac{1}{ppmv}\right)\left(\frac{g\text{-}mole}{scm}\right)\left(\frac{MJ}{kcal}\right)$$

where the standard temperature for (g-mole/scm) is 20°C.

C_i = Concentration of sample component i in ppmv on a wet basis, as measured for organics by Test Method 18 and measured for hydrogen and carbon monoxide by American Society for Testing and Materials (ASTM) D1946–77 or 90 (Reapproved 1994) (incorporated by reference as specified in §63.14).

H_i = Net heat of combustion of sample component i, kcal/g-mole at 25 °C and 760 mm Hg. The heats of combustion may be determined using ASTM D2382–76 or 88 or D4809–95 (incorporated by reference as specified in §63.14) if published values are not available or cannot be calculated.

n = Number of sample components.

(7) (i) Steam-assisted and nonassisted flares shall be designed for and operated with an exit velocity less than 18.3 m/sec (60 ft/sec), except as provided in paragraphs (b)(7)(ii) and (b)(7)(iii) of this section. The actual exit velocity of a flare shall be determined by dividing by the volumetric flow rate of gas being combusted (in units of emission standard temperature and pressure), as determined by Test Method 2, 2A, 2C, or 2D in appendix A to 40 CFR part 60 of this chapter, as appropriate, by the unobstructed (free) cross-sectional area of the flare tip.

(ii) Steam-assisted and nonassisted flares designed for and operated with an exit velocity, as determined by the method specified in paragraph (b)(7)(i) of this section, equal to or greater than 18.3 m/sec (60 ft/sec) but less than 122 m/sec (400 ft/sec), are allowed if the net heating value of the gas being combusted is greater than 37.3 MJ/scm (1,000 Btu/scf).

(iii) Steam-assisted and nonassisted flares designed for and operated with an exit velocity, as determined by the method specified in paragraph (b)(7)(i) of this section, less than the velocity V_{max}, as determined by the method specified in this paragraph, but less than 122 m/sec (400 ft/sec) are allowed. The maximum permitted velocity, V_{max}, for flares complying with this paragraph shall be determined by the following equation:

$\text{Log}_{10}(V_{max}) = (H_T + 28.8)/31.7$

Where:

V_{max} = Maximum permitted velocity, m/sec.

28.8 = Constant.

31.7 = Constant.

H_T = The net heating value as determined in paragraph (b)(6) of this section.

(8) Air-assisted flares shall be designed and operated with an exit velocity less than the velocity V_{max}. The maximum permitted velocity, V_{max}, for air-assisted flares shall be determined by the following equation:

$V_{max} = 8.71 = 0.708(H_T)$

Where:

V_{max} = Maximum permitted velocity, m/sec.

8.71 = Constant.

0.708 = Constant.

H_T = The net heating value as determined in paragraph (b)(6)(ii) of this section.

[59 FR 12430, Mar. 16, 1994, as amended at 63 FR 24444, May 4, 1998; 65 FR 62215, Oct. 17, 2000; 67 FR 16605, Apr. 5, 2002]